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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,484	02/27/2002	Doo-hwan Chun	P56635	4791

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EXAMINER	
TRIEU, VAN THANH	

ART UNIT	PAPER NUMBER
2636	

DATE MAILED: 04/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/083,484	CHUN, DOO-HWAN	
	Examiner	Art Unit	
	Van T Trieu	2636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 February 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *14 Nov 2003*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because line 10, typing error "displayedon" should change to --- displayed on ---. Correction is required. See MPEP § 608.01(b).

Claim Objections

2. Claim 16 is objected to because of the following informalities: the phrase "orderednumbers" should change to --- ordered numbers ---. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 4, 8-18, 20-23 and 30-38 are rejected under 35 U.S.C. 102(b) as being anticipated by **Jain et al** [US 5,745,126].

Regarding claim 1, the claimed security system, comprising a multi-channel image processor selectively receiving image signals transmitted through plurality of input channels and outputting the image signals (the MPI video system for use to provide

security coverage/post, hazardous event, football event and/or complex roadway traffic situations, comprises a multiple-channel broadcast systems automatically continuously producing multiple views of a single event on each multiple channels, including a plurality of input cameras 10a -10n and image outputs to a display 18 being processed by an environmental model builder/computer 13, see Figs. 1-5, col. 17, lines 9-67, col. 31, lines 16-17, col. 35, lines 50-60 and col. 40, lines 6-22); and the computer being connected with the multi-channel image processor through a communication interface (the viewer interface 15, see Fig. 1, col. 17, lines 11-67, col. 18, lines 1-16); and the computer having a multi-channel image driver and the multi-channel image driver controlling a selection of at least one of the input channels in accordance with a selected set-up mode (the display control 17 controls selectively by a user/viewer to generate multiple images on a display 18, see Figs. 1, 3 and 4, col. 18, lines 17-44, col. 21, lines 35-67 and col. 22, lines 1-13); and the computer inputting the image signals outputted from the multi-channel image processor (the computer 13, see Figs. 3 and 4); and supplying a main image display window displaying the inputted image signals to a main frame of a display device (the display 18 with main frame video screen, see Figs. 3 and 4); and supplying at least one manipulation key window displaying keys to the main frame of the display device (the keyboard, the button for querying, the cursor position and video control, see Figs. 3, 4 and 12); and processing in accordance with the selected set-up mode, performing at least one selected from among displaying the inputted image signals through the display device in accordance with the selected set-up mode (the environmental model builder/computer 13, see Figs. 1, 3 and 4); and the

recording the inputted image signals in a memory in accordance with the selected set-up mode (the video database, see Fig. 1, col. 8, lines 49-67 and col. 14, lines 54-67); and the displayed keys being for selecting the selected set-up mode and other modes, the main image display window and the at least one manipulation key window being integrally displayed on the mainframe of the display device (the computer 13 with a keyboard and the computer graphic display including the button for querying, the cursor position and video control, see Figs. 3, 4 and 12).

Regarding claim 2, all the claimed subject matters are cited in respect to claim 1 above, and including the plurality of memories, the coding unit and the main controller are met by the database and the memories of the computer 13 for storing a plurality of input channels/cameras 10n, wherein the signals are digital coded signals, see Figs. 1-5, 12 and 15.

Regarding claim 4, all the claimed subject matters are cited in respect to claim 3 above.

Regarding claim 8, all the claimed subject matters are cited in respect to claim 3 above, and including the alarm sensor sensing an abnormality of an object to be watched (the dynamic object detection for detecting of hazardous event and/or security coverage or security post, see col. 16, lines 22-25 and col. 31, lines 16-18).

Regarding claim 9, all the claimed subject matters are cited in respect to claim 8 above.

Regarding claim 10, all the claimed subject matters are cited in respect to claim 9 above.

Regarding claim 11, all the claimed subject matters are cited in respect to claim 1 above, and including the photographic device having a photograph direction changed in accordance with a control signal (the camera coordinate system including controlling of pan angle, tile angle, rotate angle and camera parameters, see Fig. 7, col. 23, lines 62-67, col. 24, lines 1-67 and col. 25, lines 1-27).

Regarding claim 12, all the claimed subject matters are cited in respect to claim 11 above, and including the focus adjust key, the zoom in/out adjust key and the photograph direction manipulation key (the camera coordinate system, see Fig. 7, col. 24, lines 1-28).

Regarding claim 13, all the claimed subject matters are cited in respect to claim 12 above, and including the photograph direction manipulating key being displayed as a mark having a predetermined shape on an initial point in a direction display window displaying direction guide information guiding a photograph adjust direction when the photograph direction manipulation key is not selected (the viewer can manipulate the three-dimensional cursor to mark a point, see Fig. 4 and 6-10, col. 8, lines 41-67, col. 10, lines 31-39, col. 22, lines 31-62 and col. 38, lines 36-44).

Regarding claim 14, all the claimed subject matters are cited in respect to claims 11 and 13 above.

Regarding claim 15, all the claimed subject matters are cited in respect to claim 14 above.

Regarding claim 16, all the claimed subject matters are cited in respect to claims 12 and 14 above.

Regarding claim 17, all the claimed subject matters are cited in respect to claim 16 above, and including auto pan key (the camera pan and zoom, see col. 6, lines 27-44 and col. 13, lines 24-36).

Regarding claim 18, all the claimed subject matters are cited in respect to claim 17 above, see Figs. 16-21.

Regarding claim 20, all the claimed subject matters are cited in respect to claim 1 above, and including the set-up module window, see Fig. 4.

Regarding claim 21, all the claimed subject matters are cited in respect to claims 1 and 12 above.

Regarding claim 22, all the claimed subject matters are cited in respect to claim 1 above, see Fig. 1-4.

Regarding claim 23, all the claimed subject matters are cited in respect to claims 1 and 2 above.

Regarding claim 30, all the claimed subject matters are cited in respect to claims 1 and 12 above, and including the receiver (the computer receives and processes multiple video views/images from the cameras 10a-10n and from the user/viewer specified criterions, see Figs. 1-4, col. 7, lines 51-64 and col. 9, lines 8-10).

Regarding claim 31, the method claimed limitations are met by the apparatus claim 1 above.

Regarding claim 32, all the claimed subject matters are cited in respect to claims 11 and 31 above.

Regarding claim 33, all the claimed subject matters are cited in respect to claims 1s and 32 above.

Regarding claim 34, all the claimed subject matters are cited in respect to claims 13 and 33 above.

Regarding claim 35, all the claimed subject matters are cited in respect to claims 14 and 32 above.

Regarding claim 36, all the claimed subject matters are cited in respect to claims 15 and 35 above.

Regarding claim 37, all the claimed subject matters are cited in respect to claims 16 and 35 above.

Regarding claim 38, all the claimed subject matters are cited in respect to claims 17 and 37 above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 3, 5-7, 24 and 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Jain et al** [US 5,745,126] in view of **Lemons et al** [US 6,504,479].

Regarding claim 3, **Jain et al** fails to disclose the plurality of A/D converters being disposed respectively between each one of the plurality of input channels and each one of the plurality of memories, converting the inputs signals into digital signals. However, **Jain et al** teaches that the computer 13 for digitally processing and controlling of received analog signals from each of the cameras 10a-10n via the Camera Sequence Buffers CSB 11a-11n, and other sensing signals, which are storing in the form of digital video database, see Figs. 1-5 and 12, col. 6, lines 12-44 and col. 13, lines 37-51). **Lemons et al** suggests that an integrated security system for monitoring intrusions onto the premises comprising a plurality of sensor components 18, 26, 138, 142, 154 and video camera components 28, 108, 110, 112, 114, 116 and 118. The outputs from camera components may be digital or analog. The interface devices 146 are used to convert signals between the formats used by the SCU 14 and the components, see Figs. 1-3, col. 4, lines 10-45, col. 5, lines 47-67 and col. 6, lines 1-41. Therefore, it would have been obvious to one skill in the art at the time the invention was made to adapt the conversion interface devices of **Lemons et al** to each of the Camera Sequence Buffers of **Jain et al** for converting of the camera analog signals to digital signals to be processed by well known computer and storing digital memories and database.

Regarding claim 5, **Jain et al** fails to disclose the multi-channel image processor comprises an RS-232 interface module being connected with the main controller and communicating data with the computer. However, **Jain et al** silences of what type of

cables connecting between the multiple cameras 10a-10n, the sensors, the computer 13, the monitor, the display control 17 and the display 18, see Figs. 1 and 3. **Lemons et al** suggests that an integrated security system for monitoring intrusions onto the premises comprising the interface between the sensors S1-S4, the cameras C, the access control unit A1, the lights L1, the actuators L2, and the site control unit SCU 14 are the RS-232 or RS-485 interfaces, see Figs. 1-4, col. 6, lines 29-40 and col. 7, lines 14-25. Therefore, it would have been obvious to one skill in the art at the time the invention was made to substitute the RS-232 or RS-485 of **Lemons et al** for cables of **Jain et al** because such connection cables having a plurality of pins for connecting between computer and interface devices are well known in the art and available in the market.

Regarding claim 6, all the claimed subject matters are discussed between **Jain et al** and **Lemons et al** in respect to claim 5 above, and including the RS-485 interface.

Regarding claim 7, **Jain et al** fails to disclose the wireless transmitter being connected with the main controller, wirelessly transmitting and receiving data to and from apparatus connected to the plurality of input channels. However, **Jain et al** silences of what type of cables connecting between the multiple cameras 10a-10n, the sensors, the computer 13, the monitor, the display control 17 and the display 18, see Figs. 1 and 3. **Lemons et al** suggests that an integrated security system for monitoring intrusions onto the premises comprising the interface between the sensors S1-S4, the cameras C, the

access control unit A1, the lights L1, the actuators L2, and the site control unit SCU 14 are the RS-232 or RS-485 interfaces. The monitoring center 38 is wirelessly two-way communicating with the cameras and sensors through the SCU 14 and the wireless communication channel 36, see Figs. 1-4, col. 5, lines 15-25, col. 6, lines 29-40 and col. 7, lines 14-25. Therefore, it would have been obvious to one skill in the art at the time the invention was made to substitute the wireless communication channel of **Lemons et al** for the cable connections of **Jain et al** in order to eliminate of cables/wires for easily installation.

Regarding claim 24, all the claimed subject matters are discussed between **Jain et al** and **Lemons et al** in respect to claims 5 and 23 above.

Regarding claim 26, all the claimed subject matters are discussed between **Jain et al** and **Lemons et al** in respect to claims 5 and 24 above.

Regarding claim 27, all the claimed subject matters are discussed between **Jain et al** and **Lemons et al** in respect to claims 6 and 26 above.

Regarding claim 28, all the claimed subject matters are discussed between **Jain et al** and **Lemons et al** in respect to claims 7 and 26 above.

Regarding claim 29, all the claimed subject matters are discussed between **Jain et al** and **Lemons et al** in respect to claims 8 and 24 above.

5. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Jain et al** [US 5,745,126] in view of **Sellie, Sr.** [US 5, 557,553].

Regarding claim 19, **Jain et al** fails to disclose the memory capacity display window disposed at a side of the main frame to display a memory capacity, the multi-channel image driver calculating remaining memory capacity of the computer and displaying the remaining memory capacity through the memory capacity display window. However, **Jain et al** teaches that the computer 13 includes scene analysis and display control 17 for processing and controlling to display images selected and requested by a user or viewer on a computer graphic display including windows for displaying camera list, player/object list and a video screen, see Fig. 4. **Sellie Sr.** suggests that a computer assisted time study system allows a user or observer to manipulate the data device 10 manually, while directly observing the worker or operator and his movements. The timing of the intervals, in which the movement occur are displayed on a visual display 24. The window display 24 displays the percentage of memory remaining of the data device 10, see Figs. 1-4 and 12, col. 1, lines 61-67, col. 2, lines 11-15 and col. 8, lines 28-29. Therefore, it would have been obvious to one skill in the art at the time the invention was made to utilize the memory remaining display of **Sellie Sr**. onto the computer graphic display of **Jain et al** for preventing of losing data or images due to low

memory in the computer, since the computer is designed to display status of the detected images and status of the system to a user/viewer.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Brunetti et al discloses an ingress/egress control system controlling security at the airport, comprising a plurality of video cameras and detectors for generating alarming and displaying of security problems. [US 6,507,278]

Bartolotta et al discloses a video system comprising a master control unit and slave devices connected to video cameras, video recorder and video monitor for providing surveillance security system. [US 6,717,611]

Schatz et al discloses a three-dimensional machine vision safety solution for displaying of objects/targets to a user/viewer with capability of manipulating data. [US 6,297,844]

Seeley et al discloses a video security system to detect unwanted intrusions onto the premises, comprising a plurality of video camera, a video multiplexer and wireless communications. [US 6,069,655] and [US 6,097,429]

7. Any inquiry concerning this communication or earlier communications from examiner should be directed to primary examiner **Van Trieu** whose telephone number is (703) 308-5220. The examiner can normally be reached on Mon-Fri from 7:00 AM to 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. **Jeffery Hofsass** can be reached on (703) 305-4717.

The central office facsimile number is (703) 872-9306.

Van Trieu
Primary Examiner
Date: 4/27/04